

Notice of Allowability

Application No.

10/701,418

Examiner

Alain L. Bashore

Applicant(s)

RANJAN ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8-20-07.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

ALAIN L. BASHORE
PRIMARY EXAMINER

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages-5, filed 8-20-07, with respect to the claims as amended in the Examiner's amendment below have been fully considered and are now persuasive. The previous 35 USC 103 rejection and obviousness double patenting rejection of the previous office action has been withdrawn.

2. Regarding request for rejoinder upon allowance of species, claims 11-19 only rejoined that were previously withdrawn from consideration as a result of a restriction requirement, 3-1-06. Claims 11-19 are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because claims 11-19 which were previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on 3-1-06 is hereby modified to be only between method and product claims where the product claims 20-24 continue as withdrawn.** In view of the partial withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn for certain claims, the provisions of 35 U.S.C.

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121 are no longer applicable for those claims. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

EXAMINER'S AMENDMENT

3. This application is in condition for allowance except for the presence of claims 20-24 directed to invention non-elected without traverse. Accordingly, claims 20-24 are cancelled in the examiner's amendment below.

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Cancel claims 20-24.

Allowable Subject Matter

5. Claim 1-19 are allowed.

Drawings

6. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because drawings filed 11-6-03 are informal in nature. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for formal drawings will not be held in abeyance.

Reasons for allowance

7. The following is an examiner's statement of reasons for allowance:

The present invention includes independent claims 1 and 11. Claims 1 and 11 both recite a method of manufacturing granular perpendicular magnetic recording media.

Shimizu et al is considered the closest prior art. Shimizu et al disclose a method of manufacturing granular perpendicular magnetic recording material.

Shimizu et al does not disclose the claimed combination including:

In claim 1:

forming a layer stack on said surface of said substrate, said layer stack including a granular perpendicular magnetic recording layer having an exposed upper surface;

generating a plasma containing at least one ionized oxygen species derived from a source gas comprised of a compound of oxygen and at least one other non-metallic element; and

treating said exposed upper surface of said granular perpendicular magnetic recording layer with said plasma to form an oxidized surface layer.

In claim 11:

forming a layer stack on said surface of said substrate, said layer stack including a granular perpendicular magnetic recording layer having an exposed upper surface and formed by reactively sputtering a target comprised of a magnetic alloy in an atmosphere containing at least one ionized oxygen species derived from a source gas comprised of a compound of oxygen and at least one other non-metallic element; and

treating said exposed upper surface of said granular perpendicular magnetic recording layer with an oxygen-containing gas to form an oxidized surface layer.

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For these reasons claims 1 and 11 are deemed to be allowable over the prior art of record, and claims 2-10, 12-19 are allowable by dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alain L. Bashore/
Primary Examiner
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